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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,669	12/11/2003	Fred B. Holt	030048003US1	2161
25096	7590	10/09/2007		
PERKINS COIE LLP PATENT-SEA P.O. BOX 1247 SEATTLE, WA 98111-1247			EXAMINER LAZARO, DAVID R	
			ART UNIT 2155	PAPER NUMBER
			MAIL DATE 10/09/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/733,669

Applicant(s)

HOLT ET AL.

Examiner

David Lazaro

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 12/11/03, 8/9/04
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application
- ☐ Other: _____

DETAILED ACTION

1. Claims 9-30 were canceled in a preliminary amendment (12/11/2003).
2. Claims 1-8 are pending in this office action.

Priority

3. This application is a division of Application No. 09/629577, filed 07/31/2000.

Information Disclosure Statement

4. The information disclosure statements (IDS), submitted on 08/09/2004 and 12/11/2003 are being considered by the examiner. The NPL documents for the 12/11/2003 IDS could not be found in the record. As such, the examiner was not able to consider the NPL documents cited of the 12/11/2003 IDS.

Drawings

5. The drawings filed 04/09/2004 are accepted by the examiner.

Specification

6. The abstract of the disclosure is objected to because it is not directed to the particular invention of the divisional application (i.e. determining a diameter of a broadcast channel). Correction is required. See MPEP § 608.01(b).
7. Additionally, the examiner suggests changing the title to be more indicative of the diameter determination subject matter to which the claims are directed.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 6 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 6 recites the limitation "the new estimated diameter". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1-5 and 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent U.S. Patent 4,742,511 by Johnson (Johnson) in view of "A Flexible Architecture for Multi-Hop Optical Networks" by Jaekel et al. provided by applicant's 08/09/2004 IDS (hereinafter Jaekel) and RFC 1812, "Requirements for IP Version 4 Routers" by F. Baker, published June 1995, section 4.2.2.9 (hereinafter Baker).
13. With respect to claim 1, Johnson teaches a method in a computer system for determining a diameter of a broadcast channel, the broadcast channel having

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computers, each computer connected to at least three neighbor computers, the method comprising:

receiving a message from a neighbor computer (Col. 6 line 26- 57: node distance packets are generated and sent to each neighbor computer);

identifying a distance traveled from the received message (Col. 6 lines 26-57: node distance packet indicates the distance traveled);

incrementing the distance traveled in the message (Col. 7 lines 3-15: distance is incremented); and

sending the message with the incremented distance traveled to a neighbor computer (Col. 7 lines 3-15: distance is incremented and transmitted to neighbors).

Johnson further teaches the determination of the shortest paths based on the distance information (Col. 7 lines 27-31, Col. 8 lines 45-65: shortest logical routes based on node distance packets).

Johnson does not explicitly disclose setting an estimated diameter based on the identified distance traveled amount. However, Jaekel shows that one can easily determine the diameter based on knowledge of the shortest paths (Page 472, first paragraph under introduction - network diameter is the maximum of the shortest paths). Furthermore, Baker indicates that knowing the diameter is useful in determining the distance a message should travel (See last paragraph of section 4.2.2.9 on pages 46-47: setting TTL based on twice the diameter).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to set an estimated diameter based on the identified distance

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traveled amount as suggested from Jaekel and Baker, to improve Johnson for the predictable result of determining a distance a message should travel based on the diameter.

14. With respect to claim 2, Johnson further teaches wherein the setting of the estimated diameter sets the estimated diameter to the distance traveled whenever the identified distance traveled is greater than the current estimate diameter (In Johnson: Col. 6 line 58 - Col. 7 line 15).

15. With respect to claim 3, Johnson further teaches wherein the computers of the broadcast channel form an m -regular and m -connected graph (In Johnson: see fig 2).

16. With respect to claim 4, Johnson further teaches wherein m is 4 (In Johnson: see fig. 2).

17. With respect to claim 5, Johnson further teaches wherein each computer is connected to its neighbor computers via a point-to-point connections (In Johnson: see fig. 2).

18. With respect to claim 7, Johnson further teaches receiving a message indicating a new estimated diameter; and when the new estimated diameter is greater than the currently estimated diameter, setting the estimated diameter to the new estimated diameter (In Johnson: Col. 6 line 58 - Col. 7 line 15) .

19. With respect to claim 8, Johnson further teaches receiving a message indicated to reset the estimated diameter to a new estimated diameter; and setting the estimated diameter to the new estimated diameter (In Johnson: Col. 6 line 58 - Col. 7 line 15).

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20. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Jaekel and Baker as applied to claim 1 above, and further in view of U.S. Patent 6,205,146 by Rochberger et al. (Rochberger).

21. With respect to claim 6, Johnson in view of Jaekel and Baker does not explicitly disclose when the estimated diameter is set, broadcasting a message indicating the new estimated diameter.

Rochberger teaches that when new distance information is set, a message is broadcast indicating the new information (Col. 8 line 56 - Col. 9 line 3). This allows each node to have the appropriate distance knowledge (Col. 9 lines 1-3).

Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply the technique of broadcasting new information when the information is set as taught by Rochberger, to improve the system of Johnson in view of Jaekel and Baker for the predictable result of providing diameter knowledge for each of the nodes.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Lazaro whose telephone number is 571-272-3986. The examiner can normally be reached on 8:30-5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached on 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



David Lazaro
October 2, 2007